

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	0	(consisting adj essentially adj of adj overbasing)	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/08 14:39
S5	0	(overbased adj polyalkenyl adj sulfonic adj acid) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/15 17:06
S8	356	(sulfonic adj acid) with (neutralizing agent) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/15 17:55
S3	33	(overbased adj sulfonic adj acid) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 11:08
S10	477	overbased and promoter and "508". clas. and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 11:16
S12	2	S10 and (polyalkenyl adj sulfonic)	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 11:17
S11	78	S10 and polyalkenyl	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 11:17
S7	2	(polyalkenyl adj sulfonic adj acid) and neutralizing @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 13:09
S13	1	"3954849".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 13:12
S14	1	("3954849").URPN.	USPAT	AND	ON	2006/12/26 13:13
S15	25	overbased and sultone and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 14:35
S16	1	("4201682").URPN.	USPAT	AND	ON	2006/12/26 14:40
S18	0	sulfonic and (rapid adj stabiliz\$4)	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 14:59
S4	1	"5652201".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 14:59
S22	3	sulfonate with overbased with degradation	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:12
S21	673	S19 and neutralized	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:12

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S20	1559	S19 and "508".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:12
S19	1991	sulfonate with overbased	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:12
S24	0	sulfonate with overbased with (side adj reaction)	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:13
S23	1	sulfonate with overbased with degraded	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:13
S9	2	"5344967".pn. or "4321214".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:14
S27	1	ca-2057196-\$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/12/26 15:16
S26	68	S25 and "508".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:16
S25	232	(sulfonic adj acid) with (calcium adj hydroxide) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:17
S30	6	(polyisobutenyl adj sulfonic adj acid) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:18
S29	0	(sulfonic adj acid) with (calcium adj hydroxide) with polyisobutene and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:18
S28	1	(sulfonic adj acid) with (calcium adj hydroxide) with polyisobutenyl and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:18
S33	16	S31 and "508".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:47
S32	769	sulfonate with stabilized	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:47
S31	209	sulfonate with stabilization	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:47
S17	1	sulfonate and (rapid adj stabiliz\$4)	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:47

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S34	63	S32 and "508".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 15:48
S36	1	"4541938".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 16:41
S35	39	S34 and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 16:41
S37	11	("3076841"   "3105049"   "3318809"   "3323630"   "3523899"   "4165291"). PN.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 16:46
S40	15	S39 not S38	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 16:47
S38	13	overbased with immediately	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 16:47
S39	15	overbased with rapidly	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 17:28
S42	0	overbased with quickly	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 17:29
S41	9	overbased with (one adj hour)	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 17:29
S43	6	overbased with quickly	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 17:35
S45	47	sultone and "508".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:05
S44	8	sultone with (side adj reaction)	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:05
S49	1	(calcium adj sulfonate) with unstable	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:12
S48	32	(calcium adj sulfonate) with stable	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:12
S46	26	S45 and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:12

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S52	171	(sulfonic adj acid) with unstable	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:13
S51	1556	(sulfonic adj acid) with stable	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:13
S50	1567	(sulfonic adj acid) with stability	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:13
S6	6	(polyalkenyl adj sulfonic adj acid) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:13
S57	29	S55 and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:14
S56	71	S51 and "508".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:14
S55	47	S50 and "508".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:14
S54	3	(polyalkyl adj sulfonic adj acid) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:14
S53	9	S52 and "508".clas.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/26 18:14
S58	153	overbased with pressure	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:44
S2	0	(overbased adj \$4alkenyl adj sulfonic adj acid) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:44
S63	27	(calcium adj sulfonate) with stability	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:45
S62	17	S60 and psi	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:45
S61	0	S60 and psia	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:45
S60	120	S58 and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:45

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S59	0	overbased with pressure with psia	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:46
S64	9	overbasing with pressure	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:51
S65	39	(low adj overbased) and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 09:52
S67	0	wo-03020822-\$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/12/27 10:02
S66	38	S65 and sulfonic	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/27 10:02
S68	1	wo-2003020822-\$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/12/27 10:04
S69	78	(neutral adj sulfonate) and "508".clas. and @ad<"20030912"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/12/27 10:05
S70	73	S69 not S65	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/12/27 10:09
S71	8	((("2956018") or ("3027325") or ("3036971") or ("3158572"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/12/27 10:16
S74	54	S73 and vessel	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/28 17:02
S73	107	oleum and overbased and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/28 17:02
S72	107	oleum and overbased and @ad<"20030912"	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/28 17:02
S77	1	wo-200170830-\$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/12/29 10:33

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S76	0	wo-170830-\$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/12/29 10:33
S75	0	wo-0170830-\$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/12/29 10:33
S78	1	"4321214".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/29 11:44
S79	3	("4321214").URPN.	USPAT	AND	ON	2006/12/29 12:07
S80	1	"6410491".pn.	US-PGPUB; USPAT; USOCR	AND	ON	2006/12/29 14:00